What is claimed, is

1. A method for automatically identifying tokens associated
   with an event in video sequences containing individual
   takes and extracting information contained thereon
   including the steps of:
   - classifying the candidate regions into token or non-
   token,
   - locating tokens in candidate regions,
   - locating information on the token,
   - interpreting the information on the token,
   - performing a confidence analysis on the information to
   ensure that the information was interpreted correctly,
   wherein the method further includes the steps of:
   - detecting boundaries between individual takes,
   - pre-selecting candidate regions in images of the video
   sequence following or preceding a detected boundary prior
   to the step of classifying the candidate regions, and
   that the method also further includes the steps of
   - merging information of consecutive images into a
   single, coherent set of information, and
   - detecting changes in the visual appearance of the
   token, the changes signalling a particular point of an
   event, after the step of performing the confidence
   analysis.

2. The method of claim 1, **wherein** after detecting a boundary
   between individual takes a timer is set, upon time-out
   thereof the identification process is terminated.

3. The method of claim 1, **wherein** detecting boundaries
   between individual takes includes the steps of:
   - creating a histogram from image properties for
   consecutive images,

- calculating the distance between filtered histograms of consecutive images,

- comparing the calculated distance to a preset threshold, and

5 - issuing a signal indicating a boundary is detected upon the distance exceeding the threshold.

4. The method of claim 1, **wherein** pre-selecting candidate regions in candidate images includes the steps of:

10 - defining a reference feature value set corresponding to tokens,

- scanning the image at varying locations using a suitably shaped scanning window;

- computing a feature value set for each scanning window

15 location,

- comparing each feature value set with the reference feature value set, and

- ranking the scanning windows containing feature value sets according to their distance to the reference feature

20 value set.

5. The method of claim 1, **wherein** classifying the candidate regions into token or non-token includes the steps of:

- calculating feature values from the candidate regions,

25 - comparing the calculated feature values to known classified feature values of reference images,

- assigning classifiers to the respective candidate regions, and

- assigning a classification confidence value to the

30 classified candidate regions.

6. The method of claim 1, **wherein** locating tokens in the candidate regions includes the steps of:

- scanning the candidate region using a suitably shaped

scanning window,

- calculating coefficients describing the correlation between the scanning window and a reference image of a token,

- averaging the coefficients, thereby defining a matching confidence value,

- selecting the scanning window having the highest confidence value as candidate window.

7. The method of claim 6, **wherein** the scanning window and/or the reference image is decimated or interpolated in its spatial resolution prior to calculating the correlation coefficients, resulting in a corresponding number of pixels for the scanning window and the reference image.

8. The method of claim 6, **wherein** the candidate region is re-classified to non-token if the confidence value is below a preset threshold.

9. The method of claim 1, **wherein** locating information on the token includes the steps of:
- cutting a sub-image from the candidate image using size and position data from the token localization process,
- constructing a probability map of the sub-image describing the probability that a pixel of the sub-image belongs to information on the token, and
- selecting an area of the sub-image with maximum probability values.

10. The method of claim 9, **wherein** the probability is obtained by comparing pixel properties of the sub-image to pre-defined pixel properties belonging to information elements.

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11. The method of claims 1 and 9, **wherein** interpreting the information contained on the token includes the steps of:
- rotating the selected sub-image area with maximum probability to bring the information contained therein into horizontal orientation,
- binarizing the probability map values of the sub-image area,
- filtering the binarized map, and
- performing an optical character recognition on the filtered map.

12. The method of claim 1, **wherein** a confidence analysis is effected by checking information extracted from consecutive images for consistency.

13. The method of claim 1, **wherein** merging information elements includes replacing mismatching information elements and/or information elements having low confidence with interpolated information elements.

14. The method of claim 1, **wherein** detecting changes in the visual appearance of the token includes the steps of:
- detecting and locating parts of the token subject to change by analysing visual features in candidate regions and comparing the visual features to pre-determined visual features of tokens,
- monitoring the change in visual appearance of the parts subject to change by comparing detected visual features in consecutive images, and
- outputting data describing the degree of change with regard to a pre-determined starting and/or end point.

15. The method of claim 14, **wherein** the visual features are translated into simplified models for analysis and monitoring.